

## Effects of cadmium and glucose on microbial communities: Revealing of the leading factor

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### Abstract

© 2016, International Journal of Pharmacy and Technology. All rights reserved. Anthropogenous activity leads to accumulation in the soil of metals which often come to it along with organic matter. In the conditions of a laboratory experiment response of soil microbial community to an individual and simultaneous importation of glucose and cadmium is investigated. Changes of microbial community characterized by the following parameters – the common microbial biomass, respiratory activity and growth characteristics of soil community. It is established that the importation of cadmium and glucose renders multidirectional effects. At simultaneous influence of available organic matter and metal of change of the analysed parameters depend on a ratio and concentration of connections. The cluster analysis of the obtained data demonstrates that at the studied concentration of cadmium and glucose a major factor, in charge of formation of communities, metal whereas organic matter plays the supporting role is.

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### Keywords

Cadmium, Glucose, Microbial biomass, Respiration, Soil communities